

# HASP Template

UNITED STATES DEPARTMENT OF AGRICULTURAL  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

## **HASP Section 5 Personal Protective Equipment**

### **5.1 Introduction**

Personal Protective equipment (PPE) is the final line of defense in the hazard control hierarchy. Engineering controls and administrative controls are preferable to PPE. Nevertheless, there are numerous tasks and situations in a deployment where APHIS personnel will have to rely on PPE for their protection.

There are a number of reasons why PPE is the lowest preference for hazard control. The major obstacles of safe PPE use are: lack of use, inappropriate use, and malfunctioning or weakened equipment.

#### **Lack of Use**

APHIS personnel, contractors and temporary employees are expected to use the PPE provided as outlined by the Safety Officer. One of the drawbacks of PPE is it must be used, and used as outlined (examples would include eye injuries due to a lack of safety glass use or dust inhalation from not using dust masks). All Command staff, General staff and other deployment personnel with supervisory responsibility are expected to enforce proper PPE use.

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## **Improper Use**

PPE must be used as per manufacturer guidelines to properly protect the employee. Using the PPE in an altered fashion may limit, if not negate, its protective value. This limitation is overcome by properly training personnel on proper donning, use, and doffing of PPE (an example would include touching contaminated gloves to clean skin during removal).

## **Malfunctioning or Weakened Equipment**

All PPE equipment is disposable. Disposing of faulty PPE and obtaining new PPE is an important process in PPE use. To assure that employees are receiving the full protective value of PPE, employees must be trained on inspection procedures for all PPE being used (examples would include failure of a hard hat which had a broken suspension system or failure of safety shoes which had the metal toe plate exposed).

## **Reference**

Appendix 5-A is a handout on PPE Use and provides some very basic information on the subject. Appendix 5-B provides more detailed information on PPE selection and inspection.

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## 5.2 PPE Levels

### PPE Level Definition

As per OSHA's HAZWOPER (29 CFR 1910.120) standard, four levels of PPE use are recognized.

Level D- This level has no respiratory protection and minimal skin protection. Level D protection is the normal work clothes and non-respiratory PPE. Work shirt, safety boots and safety glasses are all examples of PPE used at this level. Dust masks used on a voluntary basis would still fall under Level D protection.

Level D Modified – This Level is the same as Level D for respiratory protection, but the skin protection is increased to that of Level C

Level C- This level has skin protection up to chemical/biological resistant clothing (tyvek and such) and air purifying respirator protection. At this level there are known air contaminants for which approved air filtering cartridges exist and the air contaminate levels are below the IDLH. Mandatory dust mask use (including for biological) would fall under level C

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Level B- The skin protection for this level is the same as Level C, the respiratory protection, however, is some type of supplied air system (SCBA or airline).

Level A- This is the highest level of protection, with a total encapsulating suit. This level is used in situations where gas/vapor dermal contact poses a hazard or where splash contact can pose an IDLH situation.

## **PPE Level A and B**

Situations requiring Level B and Level A PPE, in which APHIS is the Agency with Jurisdiction, are unlikely. APHIS deployments will usually be at the D and C Levels.

**NOTE: APHIS does not currently have the ability or resources to upgrade to Level A or B.**

If necessary, however, the Incident Commander will have to acquire trained and equipped personnel to perform this work.

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For situations where APHIS is an Operations Group (such as incidents involving WMD or chemical spills), the Incident Safety Officer will instruct the APHIS Safety Officer on PPE levels and procedures.

## **Respirator Use**

For Level C and for voluntary Respirator use, a respiratory protection program must be in place. Appendix 5-C is a sample program and can be used.

### **5.3 PPE Selection and Use**

All decisions on which protective level is most appropriate will be made by the Incident Safety Officer. The level of protection selected will be based on:

- The type and (if measurable) concentration of the agent of concern. This can be chemical, biological or physical agents.
- Potential for exposure to substances in the air, liquid splashes, or other direct contact with various agents.

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## **PPE Assessment**

The Incident Safety Officer will have the Hazard Analysis from Section 3 of this HASP as a guide to PPE use for individual tasks. If a task is performed for which there is not a JHA, or the PPE must be modified from that on the JHA, a PPE form is included for the Safety Officer to complete (see Appendix 5-D)

## **Upgrading and downgrading of PPE**

Deployment situations can be very dynamic. If air monitoring or other forms of monitoring indicate a change of conditions, or any situation arises that questions the effectiveness of current PPE levels, the Incident Safety Officer will clear the area of concern, evaluate the situation and make recommendations for further PPE if they deem necessary. The monitoring and other findings will also be used to determine if changes in work practices (such as work durations) are to be modified. See HASP section 7 for further information on monitoring.

The Incident Safety Officer will also determine when PPE levels and equipment can be downgraded due to safer conditions.

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## **5.4 Obtaining and Disposing of PPE**

APHIS employees will be provided all PPE needed for deployment tasks by their immediate supervisor or the supervisor will notify the employee where to obtain the PPE. The Supervisor or the Incident Safety Officer will inform the employee of how to dispose of used PPE and how to obtain replacements.

## **5.5 Training**

All employees, as part of their initial training, will be trained on the proper inspection, use, and storage for all PPE used in the deployment. They will also be trained on disposal procedures and how to obtain new PPE.

## **5.6 General guidelines**

The following are general guidelines to aid the Incident Safety Officer in establishing PPE levels. The majority of deployment tasks will take place in Level D or modified Level D.

The EPA Modified Level D protection scheme consists of the following PPE:

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- Cotton or disposable, chemical-resistant (Tyvek<sup>®</sup>) work uniform or coveralls.
- Leather, steel-toed work boots (with chemical resistant overboots as necessary) or chemical-resistant, steel-toed boots meeting American National Standards Institute (ANSI) standard Z41-1983, Safety-Toe Footwear, Classification 75. Approval of the boot type will be the responsibility of the Incident Safety Officer.
- Eye protection, such as faceshields, goggles, or safety glasses with side shields that meet ANSI standard Z87.1-1979 (required for operations where debris may become airborne such as dusty conditions or where splashing of liquids is a concern). Approval of eye protection equipment will be the responsibility of the Incident Safety Officer.
- Hard hats meeting ANSI standard Z89.1-1986, Class A, B and C (required only for operations around heavy equipment or in the presence of overhead hazards).



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- Chemical-resistant (nitrile) gloves when handling samples or coming in physical contact with any material in the area of investigation.
- Hearing protection, such as ear plugs or muffs (during operation of heavy equipment).

If an upgrade in PPE to Level C is required during the field activities, personnel will wear, as a minimum, the above items with the following additions:

- NIOSH approved full-face air purifying respirators (APR) with dual organic vapor and high-efficiency particulate air (HEPA) filters as a minimum.

Upgrade to Level B will include wearing a pressure-demand self-contained breathing apparatus (SCBA), chemical-resistant clothing, chemical-resistant inner and outer gloves, chemical-resistant outer boots, and a hard hat. Upgrade to Level A requires wearing all Level B equipment cited above in addition to a chemical-resistant fully encapsulating suit.

**NOTE: APHIS does not currently have the ability or resources to upgrade to Level A or B.**

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